

Connecting Teachers through Professional Development

"Districts need to provide more and better training for teachers. The first phase of our training was familiarizing them with the basics of using a computer. Now we're concentrating on helping teachers use computers and other technology in ways that bring classroom lessons to life -that integrate technology into the teaching and learning process."

**Barbara Stock Nielsen,
Ed.D.**

State Superintendent of
Education

ADEPT

[http://www.state.sc.us/
sde/reports/adept.htm](http://www.state.sc.us/sde/reports/adept.htm)

Regional Technology Centers

[http://
Pathways.sde.state.
sc.us/regional/](http://Pathways.sde.state.sc.us/regional/)

For students to benefit fully from all they learn about information technology applications, they must have teachers who understand how to integrate those technologies into the curriculum. To accomplish this fundamental goal, a determined effort to work together by the South Carolina Department of Education, South Carolina Educational Television, all institutions of higher education, as well as schools and school districts and their business partners is essential. Professional development available at the local level to provide enhanced opportunities for information technology application is the key to success.

Initially, a major effort must be made to reach all educators who are currently employed in South Carolina schools. A major step in this direction is the South Carolina System for Assisting, Developing, and Evaluating Professional Teaching (ADEPT), an integrated system of state standards, guidelines, and strategies designed to promote excellence in the teaching profession. These standards provide the foundation and continuity for all of the stages of teacher development.

At the same time, all teacher preparation programs must be encouraged to integrate information technology applications into their curricula and to assure that graduates of these programs have the knowledge and skills recommended in this technology plan. Because of constant changes which are inherent in information technology use, the essential core competencies require ongoing renewal.

The South Carolina Department of Education's Regional Technology Centers are essential to the professional development initiative. The ongoing support of these centers in providing dynamic continuing education courses is available to all educators in the state.

**Technology and
Teacher
Education**

[http://
www.mcrel.org/
connect/tech/
prodev.html](http://www.mcrel.org/connect/tech/prodev.html)

Professional development is essential in order for teachers, administrators, and support staff to observe and learn about the variety of educational uses technology has in the classroom. Educators must be given the tools to learn how to organize and effectively manage students in technology based school environments.

**ISTE Recommended Foundations in Technology
for All Teachers**

ISTE
<http://www.iste.org/>

The following competencies for all educators have been developed by the International Society for Technology in Education (ISTE) and adopted by the National Council for the Accreditation of Teacher Education (NCATE). These competencies also reflect standards in the documents used by the Southern Association of Colleges and Schools (SACS) as guidelines for accreditation developed by the National Study of School Evaluation (NSSE).

Basic Computer/Technology Operations and Concepts

All educators should be able to:

- Operate a multimedia computer system with related peripheral devices; successfully install and use a variety of software packages.
- Use terminology related to computers and technology appropriately in written and oral communications.
- Describe and implement basic troubleshooting techniques for multimedia computer systems with related peripheral devices.
- Use imaging devices such as scanners, digital cameras, and/or video cameras with computer systems and software.
- Demonstrate knowledge of computers and technology in business, industry, and society.

**Healthy Computer
Page**

[http://
pip.ehhs.cmich.edu
/healthy/](http://pip.ehhs.cmich.edu/healthy/)

Personal and Professional Use of Technology

K-12 and Beyond Resources

[http://
carbon.cudenver.
edu/public/
education/
k12/SurvivalKit.
html](http://carbon.cudenver.edu/public/education/k12/SurvivalKit.html)

**National Center to
Improve Practice in
Special Education
through
Technology, Media,
and Materials**
[http://www.edc.org/
FSC/NCIP/](http://www.edc.org/FSC/NCIP/)

All educators should be able to:

- Use productivity tools for word processing, database management, and spreadsheet applications.
- Apply productivity tools for creating multimedia presentations.
- Use computer-based technologies including telecommunications to access information and enhance personal and professional productivity.
- Use computers to support problem solving, data collection, information management, communications, presentations, and decision making.
- Demonstrate awareness of resources for adaptive assistive devices for students with special needs.
- Demonstrate knowledge of equity, ethics, and human issues concerning the use of computers and technology.
- Identify computer and related technology resources for facilitating lifelong learning as well as the developing roles of the student and the educator.
- Observe demonstrations or uses of broadcast instruction, audio/video conferencing, and other distance learning applications.

Applications of Technology in Instruction

EvalUTech

[http://
www.evalutech.
sreb.org/](http://www.evalutech.sreb.org/)

California Clearinghouse On- line

[http://
clearinghouse.
k12.ca.us/](http://clearinghouse.k12.ca.us/)

The Copyright Web Site

[http://
www.libsci.sc.edu/
scasl/scasl.htm](http://www.libsci.sc.edu/scasl/scasl.htm)

All educators should be able to:

- Explore, evaluate, and use technology resources including applications, tools, educational software, and associated documentation.
- Describe current instructional principles, research, and appropriate assessment practices as related to the use of computers and technology resources in the curriculum.
- Design, deliver, and assess student learning activities that integrate computers/technology into a variety of student group strategies and diverse student populations.
- Design student learning activities that foster equitable, ethical, and legal use of technology.
- Practice responsible, ethical, and legal use of technology, information and software resources.

**Competencies for
Advanced
Programs**

[http://www.iste.org/
Resources/Projects/
TechStandards/](http://www.iste.org/Resources/Projects/TechStandards/)

The competencies suggested for educators in specialized areas of information technology application are also those developed by ISTE for advanced programs. Those suggested guidelines and standards have been developed by the Association for Educational Communications and Technology (AECT) and the American Association of School Librarians (AASL).

Roles and Responsibilities

Many organizations at the local, regional, and state levels are responsible for implementing professional development needs for teachers, administrators, and staff.

Schools

**Technology and
Teacher Education**

[http://www.mcrel.org/
connect/tech/
prodev.html](http://www.mcrel.org/connect/tech/prodev.html)

Regular ongoing professional development for faculty and staff should be encouraged and supported daily. Initial education and training or follow-up activities which reinforce and extend workshops or courses provided by other agencies or institutions should be sustained. The sooner educators learn to use local resources, the sooner these technologies will be integrated into the basic curriculum.

Strategies for schools include:

- Providing faculty and staff with opportunities for professional development during the school day as well as other times.
- Providing faculty and staff with appropriate support from the school library media programs and media specialists.
- Providing on-site mentoring.

**South Carolina
Association of
School
Librarians**

[http://
www.libsci.sc.edu/
scasl/scasl.htm](http://www.libsci.sc.edu/scasl/scasl.htm)

School Districts

Because technology is constantly changing, there is a continual need for classroom teachers and other professional staff to acquire knowledge and skills. K-12 school districts should incorporate in-service training days within their annual calendars. These in-service **days** should include specific activities to update the skills of **teachers** in the applications of technology for **learning**

**Professional Development:
the Challenge Ahead**
[http://
www.thejournal.com/
special/profdev.html](http://www.thejournal.com/special/profdev.html)

The Ten Best Web Sites for Educational Technology
[http://
www.fromnowon.org/
techtoten.html](http://www.fromnowon.org/techtoten.html)

Technology-Savvy Education Schools
[http://www.scholastic.
com/el/exclusive/
exceptions496.htm](http://www.scholastic.com/el/exclusive/exceptions496.htm)

Effective Technology Use in Pre-service Education
[http://www.ncrel.org/
sdrs/highered/
hefront.htm](http://www.ncrel.org/sdrs/highered/hefront.htm)

Strategies for school districts include:

- Providing in-service workshops for administrators in technology planning and using technology in curriculum instruction.
- Providing access to technology instruction in order that all teachers can achieve the competencies listed in this plan.
- Providing in-service workshops modeling the use of technology by exemplary teachers.
- Offering in-service workshops at a variety of times to meet the varying schedules of teachers.
- Offering in-service workshops at varying knowledge and skill levels.
- Supporting all schools in integrating technology into the curricula.

Higher Education

Higher education is directly involved with teacher education at pre-service and in-service levels. As such, higher education partnerships are a critical component of the professional development effort.

Pre-service: Higher education institutions must provide their students with the knowledge and skills listed in this technology plan's competency section. All candidates for initial certification should demonstrate that they meet the competencies through courses or other appropriate documentation before they are certified. Courses to meet this requirement should be available from NCATE accredited state colleges and universities that provide initial teacher certification.

In-service: Institutions of higher learning must provide course work for academic credit or continuing education/re-certification credit at the undergraduate or graduate levels based on the career objectives of the individual educator. These should include introductory and advanced information technology applications for learning.

**Professional
Development
Opportunities**
[http://www.libsci.sc.edu/
miller/Professional.htm](http://www.libsci.sc.edu/miller/Professional.htm)

"We have been placing new technology at the disposal of our students and teachers at a very rapid rate, but we have also been working aggressively to train our teachers in the effective use of technology."

**Barbara Stock Nielsen,
Ed.D.**
State Superintendent of
Education

Strategies for institutions of higher education include:

- Providing all students in education career programs with beginner-level proficiency in technology applications for learning.
- Collaborating among themselves to assure statewide access to courses and workshops in information technology.
- Continuing to collaborate with appropriate local and state agencies to provide academic and continuing education credits.
- Modeling information technology integration into all higher education courses and programs.
- Offering a variety of courses in information technology that reflects its changing and dynamic nature.
- Offering courses to all interested teachers using the full range of available technologies at locations and times which are convenient and appropriate.

The South Carolina Department of Education

Because of its wide access to the state's school districts, the South Carolina Department of Education will provide leadership for all levels of professional development.

Strategies for the South Carolina Department of Education include:

- Providing professional development, planning, and support to foster local school district technology development through the Regional Technology Centers.
- Incorporating the competencies listed in this plan into the rules, regulations, standards, and assessment requirements of the Department of Education's Offices of Assessment, Teacher Licensure and Certification, and Professional Development.
- Developing guidelines for integrating information technology into the state curriculum standards with specific examples of teacher activities.

**South Carolina School
Boards Association**
<http://www.scsba.org/>

Organizations that Support Professional Development

Just as information technology must become an integral part of the curriculum, it should be an integral concern for each of the state's professional associations. While certain organizations have greater focus on technology applications for learning than others, all should work collaboratively to ensure the broadest possible network of learning and support. For example, the South Carolina School Boards Association assists school districts with such issues as establishing technology policies, strategic planning, and training personnel to effectively track budgets using In\$ite.

**Links to Professional
Organizations**
[http://www.libsci.sc.edu/
scasl/scasl.htm](http://www.libsci.sc.edu/scasl/scasl.htm)

Strategies for professional organizations include:

- Sponsoring workshops and conferences across the state to help increase competency levels of teachers, administrators, and higher education faculty.
- Working collaboratively on conferences in order to bring together expertise which individual organizations may not be able to provide.
- Serving as advocates for all students to have access to technology resources in all classrooms.

Parent and Community Organizations

As local schools establish close working relationships with parents and community organizations, it is important that they be knowledgeable contributors to information technology applications in schools. Likewise local business partners should be given the same opportunity.

Strategies for parent and community organizations include:

- Collaborating with schools and professional associations to sponsor local and statewide workshops to inform members of information technology applications to learning.

**Organization Links of
Interest to Parents and
Other Child Advocates**
[http://www.pta.org/links/
OrgLinks.htm](http://www.pta.org/links/OrgLinks.htm)

- Sharing unique expertise with educators and schools.
- Supporting the efforts of local schools to achieve equity of access to the full range of technologies available for learning.

While local autonomy and independent goal setting are vital in the education system, collaboration among these various entities is critical to the overall success of professional development in South Carolina's schools.

Recommendation

It is recommended that all educators and pre-service teachers be provided with ongoing, high quality professional development so that they will have operating knowledge about hardware and software as well as pedagogical skills in the use of technology in support of curricula.

**We must always change, renew, rejuvenate
ourselves;
otherwise, we harden.**

Goethe